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TAX REFORM IN BRAZIL:  
SMALL ACHIEVEMENTS AND GREAT CHALLENGES

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## 1. INTRODUCTION<sup>1</sup>

In the late eighties, as it became evident that the Brazilian economy would have to go through a serious fiscal-adjustment effort, the possibility of meeting a sizable part of the required adjustment from the revenue side was seen with skepticism. Over the previous 20 years, the aggregate tax burden had remained remarkably stable, fluctuating around a fourth of GDP. And, in fact, the evolution of the tax revenue in the early nineties would lend force to that skepticism. Though the tax burden was hiked up in 1990, as a result of a once-and-for-all federal revenue increase produced by the Collor stabilization plan, it was brought back to an average of roughly 25 percent of GDP over the 1991-93 period. It was really hard to envisage by then that, in the end of the nineties, the tax burden would have reached 32 percent of GDP, more than 6 percentage points above the 1991-93 average, as may be seen in Table 1.1.

It seems almost incredible that such an impressive increase in the aggregate tax revenue could after all be obtained in such a short period. And it is that raise in the tax burden that explains most of the remarkable fiscal adjustment that has been allowing the consolidation of the stabilization effort, that has been carried out in the country since 1993. The feasible fiscal adjustment ended up being very different from what would be desirable. A strong political coalition prevented the advancement of reforms that could open way to a deeper cutback in expenditure programs that remain protected by the Constitution. And most of the adjustment had to stem from the revenue side. In order to keep public accounts under a reasonable degree of control, with public indebtedness in a sustainable path, it became necessary to extract from society almost a third of GDP in taxes. By all means an overexertion, given the stage of development of the Brazilian economy.

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<sup>1</sup> The paper benefited from comments from José Antonio Gonzalez and participants of the Latin American Conference on Fiscal and Financial Reforms, organized by the Center for Research on Economic Development and Policy Reform, and held at Stanford University, in early November, 2000.

But the three levels of government in Brazil are not only collecting 32 percent of GDP in taxes. They are doing it in a very clumsy way. A large and increasing part by means of the worst kind of taxes. But despite all the public outcry and significant mobilization of both the Executive and Congress with the idea of a tax reform, so far there is no effective headway to be seen.

*Table 1.1*  
*Brazil, Gross Tax Burden*  
*1968-1999*

<i>Period</i>	<i>Tax Revenue of All Government Levels in percent of GDP</i>
<i>1968-1980</i>	<i>25,1</i>
<i>1981-1989</i>	<i>24,8</i>
<i>1990</i>	<i>28,8</i>
<i>1991-1993</i>	<i>25,3</i>
<i>1994-1998</i>	<i>29,6</i>
<i>1999</i>	<i>31,7</i>

*Source: 1968-1998, Secretaria para Assuntos Fiscais, BNDES; 1999, IBGE*

This paper is an attempt to assess what has happened and why progress has been so disappointing. It starts with a very short section on the deterioration of the Brazilian tax system, followed by a section analyzing tax-reform initiatives since 1997, and how they recently ended in deadlock. Section 4, raises a number of important points that one has to take into account to fully grasp the difficulties that are to be faced by the reform, from an aggregate point of view. In order to analyze those points more carefully, a simple consistency model is presented in section 5 and used for simulations in section 6. The ending section calls attention to how fiscal-federalism difficulties have considerably amplified the complexity of the reform.

In all fairness, it should be noted that the term tax reform will be used throughout the paper to mean indirect-taxation reform. In what concerns taxes on profits and personal income, though the tax base is far from being properly exploited, there have been increasing rationality and significant improvements over the last few years. Also, the tax collection apparatus has become much more effective, as it is being rapidly modernized, particularly at the federal level. Although the analysis of such achievements is beyond the scope of the present paper, they should not go unnoticed.

## 2. THE DETERIORATION OF THE BRAZILIAN INDIRECT TAX SYSTEM

Back in the mid-sixties, a very commendable tax reform, including a pioneering value-added taxation scheme, was successfully implemented in Brazil.<sup>2</sup> But over the last thirty years much of what was achieved by that refurbishment was lost, as the quality of the Brazilian tax system went through a clear and worrying deterioration process, at least in what concerns the taxation of goods and services.

It is impossible to understand what happened to the tax system since the sixties without having in mind the economic and political difficulties faced by the country over the last two decades. The first half of the eighties were marked by the end of the military regime and the enormous resistance of the public opinion to the idea that a long period of forty years of rapid economic growth had finally come to an end, in the wake of a combination of adverse external conditions and major blunders in economic policy, particularly in 1979 and 1980. In early 1985, the military would walk away, leaving behind an economy in disarray, with an unsolved 200-percent-a-year inflation problem, bound to snowball into an even bigger trouble that would haunt the country for the next ten years.

Fighting high inflation would become the dominant public-policy issue of the reborn democratic regime. The pressing need to deal with this problem and the early failures of the new civilian government to implement a successful stabilization plan would greatly aggravate the difficulties the country would have to face in the coming years. Actually, it should be remembered that the redemocratization process had suffered a major blow at the very moment of its inception. Unluckily, Tancredo Neves, an able and influential politician, who had been elected the first president of the civilian regime by an impressive coalition of political forces, died before taking office, opening the way to a considerably less endowed and less influential vice-president. During the first three years of his

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<sup>2</sup> See Guérard (1973).

government, Congress was drafting a new Constitution which was finally promulgated in late 1988.

Unfortunately, the long and delicate political negotiations which brought about the new Constitution took place exactly when the central government had become notably feeble, due to the shortcomings of President Sarney, accidentally inducted into office, and continuously mobilized by the quest for a higher degree of legitimacy. In fact, the central government became even feebler after the failure of two stabilization shocks, in 1986 and 1987. And those politically costly fiascos would open the way for the major constitution-reform blunder of 1988. A long-lasting and powerful vicious circle was set in motion and gathered strength, fastly amplifying the complexity of the challenges to be faced by the country in the following years.

Drafted without minimum consistency guidelines, that the politically crippled executive branch was unable to press for at that moment, the new constitution failed to endow the state with a coherent mechanism to protect the interests of the majority of the population against the multiple pressures of an emerging mass democracy. Instead, it amplified the scope for the historical widespread rent-seeking behavior of many segments of the Brazilian society, imposing upon the federal budget a considerable additional burden, exactly when the Union's fiscal resources were being reduced in favor of state and local governments, in the wake of a newly introduced but basically inconsistent fiscal federalism arrangement.

As the new tax system designed in 1988 was phased in during the early nineties, the central government faced growing financial difficulties. But soon, as could be expected, it started an unrelenting reaction to evade the pincer movement of shrinking revenues and swelling expenditures that had been imposed on the Union by new Constitution. And, as often happens, increasing revenues proved to be much easier than cutting back

expenditures, especially when a large part of the federal spending could not be reduced unless politically costly constitutional amendments were duly approved by Congress.

Actually, the Union's consistent effort to increase its tax revenue – in order both to recover what had been lost to state and local governments and to be able to properly finance its much enlarged spending responsibilities – would prove to be a tremendous success, were it not for a big problem. As the central government devised every kind of exotic taxation scheme that could raise revenues that would not be shared with lower-level governments, most of the substantial increase in the federal tax burden achieved over the last decade stemmed from very low-quality taxes. Most often that meant various forms of cascading turnover taxes, that back in the mid-sixties seemed to have been definitely eliminated from the Brazilian tax system.

*Table 2.1*  
*Importance of Cascading Taxes*  
*Share of Turnover Taxes in the Total Tax Revenue Managed*  
*by the Federal Revenue Service*

<i>Period</i>	<i>Share of Cascading Taxes</i> * <i>(period average, in percent)</i>
<i>1986-1988</i>	<i>7.3</i>
<i>1989-1993</i>	<i>22.2</i>
<i>1994-1998</i>	<i>29.6</i>
<i>1999</i>	<i>35.1</i>
<i>2000 (Jan.-Nov.)</i>	<i>39.1</i>

\* Includes revenues from IPMF/CPMF, FINSOCIAL/COFINS and PIS/PASEP.

Source: Secretaria da Receita Federal

The figures presented on Table 2.1 are particularly striking. They show the marked deterioration in the quality of the tax burden imposed by the Union that was observed since the early nineties, and especially since 1993. The share of the combined revenue of three cascading taxes in the total tax revenue managed by the Federal Revenue Service



jumped, from an average of 7.3 percent in 1986-88, to an average of 29.6 percent in 1994-98, only to jump again to 35.1 percent in 1999. And, based on partial 2000 data, one may say that it seems to be heading to 40 percent.

At the state level, distortions of a different kind accumulated over the last three decades. Part of the difficulties also stemmed from the 1988 Constitution, that granted the states a much freer hand to introduce changes in their VATs. And as most of the uncoordinated changes were in fact for the worst, they slowly transformed the pioneering, reasonably well designed, value-added taxation scheme that had been introduced by the 1967 reform, into a confusing, disharmonic collection of 27 highly complex state-tax codes, forming an unmanageable crazy quilt of VAT arrangements.

Though most states are still facing severe fiscal stringency, they have been using their freer hand in tax matters to fight a fierce fiscal war, competing among themselves to see which one offers the most generous tax breaks and succeeds in attracting the flashier big industrial investment projects. The cut-throat competition has been particularly pathetic in the case of car plants. And, as a result, the country is lavishly favoring auto makers with an enormous amount of tax expenditures, just to have something it could probably get for free.<sup>3</sup> The collective irrationality of that fiscal war has been a source of increasing resentment among governors, and has come to be perceived by a growing number of them as the swan song of the present state-VAT arrangement.

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<sup>3</sup> See “Brazil shows how much it loves carmakers”, *BusinessWeek, Latin American Edition*, October 23, 2000.

### 3. TAX REFORM: PUBLIC OUTCRY AND GOVERNMENT RESPONSE

Tax reform is always bound to be a very controversial issue. But that seems to be particularly true in today's Brazil, given the extent of the required changes in the tax system and the complexity of the country's fiscal-federalism arrangement. The 1967 reform, that molded a large part of the present tax system, was both designed and implemented in the shadow of the authoritarian regime that had taken power in 1964. And though the 1988 reform took place when the military had already walked away, it was negotiated in a climate of very scarce concern with fiscal consistency. In both 1967 and 1988 therefore, even if for widely different reasons, the real proportions of the conflicts of interests involved in a tax reform were much less clear than they are now bound to be, as has been conspicuously shown by the discussion of tax reform issues in the country over the last few years.

The widespread dissatisfaction with the clumsy and complex way the three levels of government have been extracting more than 30% of GDP in taxes from the economy has turned the country into a hotbed of exotic wonder-working tax reform proposals. In fact, two of those proposals became fairly popular among some segments of the business community in the mid-nineties. According to one of them, all taxes would be eliminated and replaced by a single and unique tax on all financial transactions. The other one envisaged a new system in which all forms of taxation requiring the filing of tax returns would be replaced by "automatic and easy-to-collect" taxes imposed on financial transactions and on a short list of goods and services. A list that would include oil, electricity, telecomm services, tobacco, beverages and cars.<sup>4</sup>

In spite of all the outcry over the tax system, the Cardoso government, that took office in early 1995, remained too busy to be able to have a clear stance about the tax reform at

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<sup>4</sup> Short descriptions of such proposals may be found in CNI, Confederação Nacional da Indústria (1998).

least till late 1997. Of course, lip service continued to be paid to the importance of carrying on a deep tax reform, as had been defended since the President's electoral campaign. But the new government had at first to deal with the difficulties imposed by the Mexican crisis. And, in fact, during its first months, it was deeply divided on how to react to the crisis. When it pulled itself together, as the effects of the external turmoil on Brazil proved to be less strong than anticipated, the Executive was able to extract from Congress important constitutional reforms that would open the way to the privatization of state-owned enterprises in mining, telecommunications and electricity-supply industries. But that proved to be the relatively easy part of the constitutional reform program. Typically, those reforms involved changing or eliminating a couple of words in the Constitution. However, there were many other much more complex reforms ahead, as the tax reform, the social security reform and the public administration reform, which required a detailed and complex redesign of the existing arrangements. And actually, in 1995, the new government had no articulate detailed projects for those far more complicated reforms. It simply did not know what it really wanted from Congress.

1996 should be the year to go ahead with the pending reforms, especially when it became clear that 1995 had been marked by a very serious deterioration of the public accounts. But the government would be completely mobilized with something else. The vast political capital, amassed in the wake of the success of the inflation-fighting program, would be mainly allocated in extracting from Congress a Constitutional amendment that would allow the reelection of the president. The Executive played a tough game and finally got the amendment approved in early 1997. But very precious time was lost, as the economy was becoming increasingly vulnerable to a less favorable external environment.

The more optimistic analysts believed that, having assured the possibility of being reelected, and having therefore reinforced its political capital, the President would be finally ready to press Congress to move forward the required constitutional reform program. But nothing of the sort happened. Quite to the contrary, in the second quarter of

1997, the government started to publicly discuss whether the pending reforms were in fact needed. And even considered the possibility of launching an ambitious public investment program. But soon the government would be shaken back to reality, with the sudden change in the international environment caused by the Asian crisis.

In late 1997, hastily preparing an emergency fiscal-adjustment package that had to be announced in the wake of the external crisis, the federal government decided that it was about time to show a more active role in the mostly nonsensical debate on tax reform that was taking place in Congress and within the business community. At an already troubled moment, the uproar over taxes was bringing much unneeded additional bad press. Though far from prepared to present something that could resemble a detailed tax-reform proposal, the government was able to announce a sensible outline of what it considered to be the required reform.

According to that outline, the envisaged reform should concentrate on straightening out the way goods and services were taxed in country. The idea was to eliminate all forms of turnover and cascading taxes, to discard the existing federal tax on manufactured goods, to dismantle the inconsistent and distorting set of state VATs and to scrap the service tax, so poorly exploited by local governments.<sup>5</sup> Those taxes would be replaced by three new ones: a consistent broad-based nationally-managed value-added tax, a new federal excise tax on a small number of goods and services and a local retail sales tax. A new set of revenue-sharing and compensation rules would be designed in such way as to preserve federal, state and local governments from revenue losses.

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<sup>5</sup> It should not only be mentioned but stressed that the government never admitted the possibility of parting with the federal tax on financial transactions. It was not included among the cascading taxes that would be eliminated. Distorting as it could certainly be, the tax would be kept with a small rate, it was argued. Being very hard to evade, it could be a source of invaluable information to tax collectors, in their effort to curb evasion of other taxes, if only Congress could pass the required legislation allowing tax authorities to have full access to detailed tax revenue data, compiled by the financial system, that could reveal the annual amount of tax on financial transactions charged to each tax payer. Such legislation was finally approved by Congress in early December 2000.

The announcement that, based on such outline, the government was preparing a detailed tax reform proposal to be eventually submitted to Congress produced a clear turnaround in the ongoing debate. The government had established a new focal point. During the next few months the federal tax authorities seemed in fact mobilized by the challenge of transforming that simple sketch of so far-reaching changes in the tax system into a minutely consistent and implementable reform project. But such mobilization would soon lose momentum. The fiscal-adjustment package that had been announced in late 1997 had given the economy some leeway to face the shock waves of the worst part of the Asian crisis. But, in the second quarter of 1998, as soon as the external environment became less unfavorable again, the government proved to be confident enough to suspend a sizable part of the fiscal-adjustment measures it had so hastily announced some months before. In the wake of that fallback, the urgency that seemed to have been assigned to the tax reform disappeared. Top priority was attributed to assuring victory in the coming presidential election.

It was not a very wise move. A few months after, in August 1998, but still two months before the election, the Brazilian economy would be caught in a very vulnerable position by the shock wave of the Russian crisis. This time it was a major shock wave, but the adoption of all relevant reacting measures had to wait for the election. When the measures were finally adopted, tough as they were, given the circumstances, they proved to be far from enough to prevent the economy from plunging in the serious foreign-exchange crisis of early 1999.

But the most traumatic part of the crisis was soon over. Restoration of confidence was fast and the overshooting of the exchange rate was surprisingly short-lived. By mid-1999, it was already perfectly clear that the impact of the devaluation would be much less costly than anticipated, both in terms of the inflationary shock and in terms of the initial depressing effects on the level of activity. In March, the government itself had announced that it was expecting a contraction of 3.5 to 4 percent in the level of activity in 1999. It

was certainly a happy surprise after all that such troubled year brought no fall at all in GDP, but a positive growth rate of almost 1 percent.

But short as it was, the scaring experience of the foreign-exchange crisis of early 1999 seems to have inoculated a surprising degree of conviction on the re-elected government about the need to maintain and consolidate the fiscal-adjustment measures adopted since the Russian crisis. However, in what concerns the tax reform, the government emerged from the crisis extremely skeptical about the possibility of going ahead with the proposal outlined in late 1997. In a landmark interview to a major newspaper in mid-March 1999 the President was particularly candid on the matter, leaving no doubts whatsoever about how he was assessing the odds. He simply said that the tax reform was too complex and that he thought the country still “lacked the required consciousness” of the involved issues and interests. Pushing the reform forward would simply paralyze the parliament, so heavy were the required political negotiations.<sup>6</sup>

Crystal-clear as that position may have seem, it would soon prove be politically untenable. Having put off the tax reform for his whole first term in office, the President suddenly found out that there was no political room left for *explicitly* putting off the reform for still another term. After all, if the tax reform was considered to be too complex to be negotiated in Congress when the President was just beginning its second term, it was hard to believe that it would be seen as an easier task in 2000, when the local elections campaign would naturally lead to a much hotter discussion of the involved issues. And, of course, it was even harder to believe that the reform would be perceived as a simpler challenge during the second half of the presidential term, when congressmen and governors would be involved in a complex redeployment of political forces, in preparation for the general elections of 2002. Postponing the reform to a more convenient

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<sup>6</sup> See “Reforma política é a prioridade, anuncia FHC”, *O Estado de S. Paulo*, 14 de março de 1999.

moment would therefore almost certainly mean to leave the whole issue for the next presidential term.

In Congress, it was immediately perceived that the President's position was in fact untenable. Given the unyielding public outcry over the inadequacy of the tax system, it would be very difficult to continue to evade the whole issue, particularly in such an overt manner. Almost simultaneously, the presiding officers of both the Senate and the Chamber of Deputies made incisive declarations to the media, disagreeing with the President's stance and strongly stressing how urgent they thought a tax reform really was. Given the impending possibility of losing initiative in such an important matter to Congress, the Executive was forced to back off and to declare that the reform was in fact a top priority issue. Having been obviously dragged to a battle it would rather evade, and worse, in the uncomfortable position of follower of the Congress, the Executive seemed in late March 1999 not only unprepared for the coming action in this area but also dangerously tempted to resort to improvisation.<sup>7</sup>

But, with the benefit of hindsight, one may say that, from then on, the government would deal with the tax reform as if it had decided to follow a different course of action. More precisely, perhaps one should say, a course of inaction. That does not mean at all that nothing happened. In fact, over the following eighteen months the tax-reform issue would involve a convoluted and far from uneventful game between Congress and the Executive. However, at the end of that game, the latter's strategy proved to have simply focused on a firm adherence to the stance the President had so clearly expressed before having been forced, back in March 1999, to unwillingly play such a game with Congress.

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<sup>7</sup> See Werneck (1999).

Though the end of the that meandering story is somewhat melancholic, its thread certainly deserves attention. A tax reform with a scope as wide as outlined by the Executive in late 1997 involves a very delicate operation in which a substantial part of the tax system is replaced by a new one. In principle, that should be done in such a way was to assure that the adopted changes form a new viable, organic and consistent arrangement. A brand-new incongruous patchwork may end up being even worse than the present arrangement, deplorable as it undeniably is. To avoid that kind of botched outcome, the Executive has to be able to negotiate with Congress the reform as whole. That does not mean that the basic proposal should be seen as immutable. It may well be extensively modified in Congress. But changes have to be introduced in such a way as to preserve the reform's consistency.

That only stresses how complex the required negotiations are. It is no easy task. But there seems to be little hope of success, if the Executive is not able to start the whole political bargaining process from a very clear and convincing basic proposal. That is exactly what the late 1997 outline seemed to be. And the essence of that outline was even revived in October 1999, when the Executive announced a somewhat different tax-reform proposal. In what concerns taxes to be eliminated there was not any major novelty. The difference was in the taxes to be created. The 1997 idea of a loosely defined "nationally managed" VAT was turned into a plain federal VAT with a clearly established revenue-sharing scheme with state and local governments. And the new federal excise tax on goods and services proposed in 1997 was converted into a new *state* excise tax.

The clear-cut definition of the proposed VAT as a federal tax triggered immediate strong opposition to the government's new proposal in Congress and among state governors. Such fierce resistance turned the government even more skeptical about the possibility of going ahead with a consistent tax reform. And since then the Executive has been trying to dissociate itself from the kind of reform that it had outlined in late 1997 and, again, in late 1999. In fact, that withdrawal was far from easy, because the essence of proposal that the



government was trying to abandon was in the meantime being adopted by Congress. Ironically as it might be, in March 2000, the Chamber of Deputies' Special Committee for Tax Reform approved a proposal that in many ways resembled what seemed to have been initially envisaged by the Executive.

In agreement with the main idea that pervaded the 1997 outline, the Special Committee proposed the elimination of all forms of turnover and cascading taxes, the discarding of the existing federal tax on manufactured goods, the dismantling of the inconsistent set of state VATs and the scrapping of the service tax charged by local governments. According to the proposal approved by the Committee, the combined revenue generated by all those taxes would be raised by a new broad-based dual VAT – involving the supposedly harmonic coexistence of separate federal and state value-added taxes – and a new municipal retail sales tax.<sup>8</sup>

As a matter of fact, a variant of that proposal, defended by the Special Committee's rapporteur, but not voted by the Committee, also gained some importance in the recent tax reform debate.<sup>9</sup> In the proposed alternative, the dual VAT would only be required to generate enough revenue to compensate the combined revenue that would be lost with the elimination of the existing federal tax on manufactured goods, the state VAT and the local-government service tax. The remaining and substantial revenue loss, that would stem from the elimination of all turnover and cascading taxes, would be recouped by a new loosely defined “non-cumulative” tax on goods and services.<sup>10</sup>

Confronted with those two proposals, the government did not hide its strong resistance to both of them. And at the end of a noisy five-month long public quarrel over the reform, in which state governors played a key role, the Executive announced that still another

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<sup>8</sup> For a good description of the Special Committee's approved proposal, see Afonso, Araujo, Rezende e Varsano (2000).

<sup>9</sup> The Committee's rapporteur is the congressman in charge of drafting the discussed legislation.

<sup>10</sup> See again Afonso, Araújo, Rezende e Varsano (2000).

proposal would be submitted to Congress. But when the proposal was finally disclosed in early August 2000, it was found out that the Executive had abandoned altogether the original idea of eliminating turnover and cascading taxes. And the main proposed change, a new destination-based VAT, still imposed by the states, but under nationally uniformed rules, was fiercely objected by some governors. A few days later, the presiding officer of the Chamber of Deputies, supported by all party leaders, simply declared that the proposal had been considered a nonstarter, as it failed to address the main tax-reform issues. After almost three years, negotiations had ended in deadlock. But the Executive did not seem to be particularly disappointed.

#### 4. Unriddling the Deadlock: A Partial Assessment of the Difficulties

Looking back to what has happened since late 1997, one may be tempted to explain the tax-reform deadlock resorting to the usual handy argument: lack of required political will in Brasília. And President Cardoso's penchant for procrastination during his first term in office makes jumping to such conclusion even more tempting. But doing so would mean to evade a deeper understanding of the difficulties and uncertainties which turn the idea of implementing a sound tax reform in Brazil today into a challenge of extreme complexity. Of course, one may always say that, confronted with such challenge, the government simply shied away. But even being that partly true, it is still interesting to find out in more detail why the tax-reform challenge has come to be perceived as some kind of Herculean task in Brasilia.

Table 4.1 allows a comparison of the main features of the five tax-reform proposals defended in the country since 1997, as discussed in section 3. Except for the last proposal, which seems to have been somewhat designed to bring down the curtain, all the other four have important common elements. They seem to share the same basic diagnosis on what is wrong with indirect taxation in the country. They are strikingly similar in what concerns taxes to be eliminated. And are not so dissimilar in what concerns taxes to be created. Considering that two of those proposals stemmed from the Executive and two from Congress, that seems to point out to a surprising degree of agreement on the main line of the required reform.

The guiding idea is the reconstruction of value-added taxation on broader and more rational grounds, in such a way as to allow the elimination of the turnover and cascading taxes that have gained so much importance over the last decade. The big question is how that switching of tax base should be brought about. The involved difficulties are certainly

*Table 4.1*  
*Tax-Reform Proposals*  
*Comparison of Main Features*

<i>Proposal</i>	<i>Taxes to be eliminated</i>	<i>Taxes to be created</i>
<i>Executive's Late 1997 Proposal October 1997</i>	<p><i>All turnover and cascading taxes (Cofins, PIS-Pasep), except tax on financial transactions</i></p> <p><i>Federal tax on manufactured products (IPI)</i></p> <p><i>State VAT (ICMS)</i></p> <p><i>Service tax charged by local governments (ISS)</i></p>	<p><i>Nationally-managed VAT</i></p> <p><i>Federal excise tax on goods and services</i></p> <p><i>Retail sales tax (IVV)</i></p>
<i>Executive's Late 1999 Proposal October 1999</i>	<p><i>All turnover and cascading taxes (Cofins, PIS-Pasep), except tax on financial transactions</i></p> <p><i>Federal tax on manufactured products (IPI)</i></p> <p><i>State VAT (ICMS)</i></p> <p><i>Service tax charged by local governments (ISS)</i></p>	<p><i>Federal VAT</i></p> <p><i>State excise tax on goods and services</i></p> <p><i>Municipal retail sales tax (IVV)</i></p>
<i>Special Committee's Proposal March 2000</i>	<p><i>All turnover and cascading taxes (Cofins, PIS-Pasep, CPMF)</i></p> <p><i>Federal tax on manufactured products (IPI)</i></p> <p><i>State VAT (ICMS)</i></p> <p><i>Service tax charged by local governments (ISS)</i></p>	<p><i>Dual VAT (coexisting federal and state VATs)</i></p> <p><i>Municipal retail sales tax (IVV)</i></p>
<i>Non-voted Rapporteurs's Proposal March 2000</i>	<p><i>All turnover and cascading taxes (Cofins, PIS-Pasep, CPMF)</i></p> <p><i>Federal tax on manufactured products (IPI)</i></p> <p><i>State VAT (ICMS)</i></p> <p><i>Service tax charged by local governments (ISS)</i></p>	<p><i>Dual VAT (coexisting federal and state VATs)</i></p> <p><i>Non-cumulative excise tax</i></p>
<i>Executive's Proposal August 2000</i>	<p><i>Federal tax on manufactured products (IPI)</i></p> <p><i>State VAT (ICMS)</i></p> <p><i>Service tax charged by local governments (ISS)</i></p>	<p><i>Federal tax on goods and services (IBS)</i></p> <p><i>Nationally uniformed state VAT</i></p> <p><i>Municipal retail sales tax (IVV)</i></p>

amplified by the complexity of the Brazilian fiscal federalism, especially because value-added taxation has traditionally been the mainstay of revenue at the state level. But, without trying in any way to underestimate the involved fiscal-federalism problems, it may be worth postponing the discussion of those difficulties to section 7. And to concentrate first on problems of a different kind that seems to have received less attention, but that will have to be duly faced by a tax reform that follows the common line pervading the first four proposals of Table 4.1.

In principle, the reform should be implemented in such a way as to avoid any loss of aggregate tax revenue, no matter how the revenue is shared among the three levels of government. It is therefore easy to conclude that it will only be possible to part with the cascading taxes, and the substantial revenue that has been raised by them, if the new value-added taxation scheme is able to generate a revenue far greater than the combined revenue which today stems from the state VAT (ICMS), the federal tax on manufactured goods (IPI) and the service tax imposed by local governments (ISS). In 1999, as shown in Table 4.2, the total revenue generated by those three taxes reached R\$ 88.9 billion (9.2 percent of GDP). The new value-added taxation scheme should be able to raise much more than that in order to allow the removal of the turnover taxes. Even if one leaves aside the tax on financial transactions (CPMF), that the federal government insists in not parting with, one has to have in mind that the remaining turnover taxes (COFINS and PIS-PASEP) raised R\$ 42 billion (4.4 percent of GDP) in 1999. Therefore, the new set of taxes introduced by the reform should be able to generate a total revenue of R\$ 130.9 billion, corresponding to 13.6 percent of GDP. As may be also seen in the bottom line of the same table, that revenue target has been moving up very rapidly, in the wake of the growing importance of federal cascading taxes. In 1997, it corresponded to only 12.4 percent of GDP.

Raising such impressive revenue will require a really broad-based value-added taxation scheme. Though, in principle, there is no problem in devising a legal definition of the

VAT base as broad as possible, there should not be any doubt about the intensity of the opposition such proposal will have to face in Congress. The existing base of the current state VAT (ICMS) would have to be substantially broadened, particularly in such a way as to include most services, so far basically sheltered from explicit taxation. That kind of change is bound to meet strong resistance in Congress. On the other hand, the broadening of the value-added tax base may as well require a heavier taxation of a considerable number of goods and services, whose consumption has been usually classified as either essential or meritorious. And that will also spurt serious opposition in Congress.

*Table 4.2*  
*Revenue from Taxes To Be Eliminated*  
*1997 and 1999*

<i>Taxes</i>	<i>1997</i>		<i>1999</i>	
	<i>Revenue R\$ billion</i>	<i>Revenue as percent of GDP</i>	<i>Revenue R\$ billion</i>	<i>Revenue as percent of GDP</i>
<i>COFINS (Federal turnover tax)</i>	<i>19.1</i>	<i>2.2</i>	<i>32.2</i>	<i>3.4</i>
<i>PIS-PASEP (Federal turnover tax)</i>	<i>7.6</i>	<i>0.9</i>	<i>9.8</i>	<i>1.0</i>
<i>IPI (Federal tax on manufactured goods)</i>	<i>16.8</i>	<i>1.9</i>	<i>16.5</i>	<i>1.7</i>
<i>ICMS (State value-added tax)</i>	<i>59.6</i>	<i>6.8</i>	<i>67.7</i>	<i>7.0</i>
<i>ISS (Service tax imposed by local governments)</i>	<i>4.8</i>	<i>0.5</i>	<i>4.7</i>	<i>0.5</i>
<i>Total</i>	<i>107.9</i>	<i>12.4</i>	<i>130.9</i>	<i>13.6</i>

Any tax reform proposal strengthening the importance of value-added taxation should therefore take into account the powerful coalition that, in many different ways, will be pressing for the erosion of the potential base of the new tax. The resulting political pressure could easily push the reform to an unreasonably high required VAT rate. One has also to have in mind that, no matter how broad the legal tax base that may be eventually extracted from Congress, there is still uncertainty about the extent to which such base will be effectively exploited, given the limitations of the tax-collecting

apparatus. Actually, there is a well known two-way relationship to be taken into account. On one hand, the VAT base has to be broad enough in order to allow the required tax rate to be reasonably low. On the other, with a high VAT rate, it will be unwise to count on an effective broad base, even if, legally, the base seems to be broadly defined.

## 5. A SIMPLE CONSISTENCY MODEL

From an aggregate point of view, the first four reform proposals outlined in table 4.1, that have so much in common, could be seen as special cases of a more general proposal that could be “stylized” as follows. All taxes listed in table 4.2 (COFINS, PIS-PASEP, IPI, ICMS and ISS) would be eliminated. Their combined revenue would be generated by three new taxes: a value-added tax, an excise tax and a retail sales tax. The differences among the four proposals have mostly to do with the design of the value-added taxation scheme and the excise tax. And there is no doubt that, from the viewpoint of fiscal-federalism, those are certainly very big differences. But not as big when seen from an aggregate perspective. And if one sticks to that perspective -- for a while, at least -- the “stylized” proposal just outlined may be very useful, since it allows a clearer discussion of some the consistency problems which have to be taken into account.

The involved problems may be analyzed with a simple consistency model.<sup>11</sup> The starting point is the constraint that the total revenue will be preserved. The new taxes would have to be able to generate as much revenue as is being generated by the taxes that are to be removed. Being such combined revenue given by  $R$ , defined as

$$R = ICMS + IPI + ISS + COFINS + PIS/PASEP \quad [1]$$

the total-revenue preservation constraint may be written as

$$EXC + VAT + ST = R \quad [2]$$

where  $EXC$ ,  $VAT$  e  $ST$  are, respectively, the revenues stemming from the excise tax, the value-added tax, and the retail sales tax.

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<sup>11</sup> The model is a new updated version of one that has been previously developed to analyze the 1997 proposal in Werneck (2000).



There is also a whole set of constraints that simply assure the preservation of the revenue of each level of government. The shares  $RUA$ ,  $REA$ , and  $RMA$ , that the Union, the states and the municipalities currently have in total revenue  $R$ , would be kept unchanged (the letter  $A$  intending to mean actual). One may therefore write

$$RU = RUA \quad [3a]$$

$$RE = REA \quad [3b]$$

$$RM = RMA \quad [3c]$$

And, of course,

$$RU + RE + RM = R = RUA + REA + RMA \quad [4]$$

Another set of constraints has to do with the preservation of each state's revenue. If one writes the current combined share  $REA$  of all states in  $R$  as the sum of each state's share,

$$REA = \sum REA_j \quad [5]$$

preserving every state from revenue loss means to require

$$RE_j = REA_j \quad [6]$$

for every  $j$ .

The excise-tax revenue  $EXC$  depends on the tax's potential base  $B_{EXC}$ , on the degree of effective exploitation of that base, measured by the coefficient  $a_{EXC}$ , and on the average rate  $t_{EXC}$  of that tax. One may simply write

$$EXC = t_{EXC} a_{EXC} B_{EXC} \quad [7]$$

where, of course,

$$0 < a_{EXC} < 1 \quad [8]$$

Analogously, the VAT revenue may be written as

$$VAT = t_{VAT} a_{VAT} B_{VAT} \quad [9]$$

where  $B_{VAT}$  is the potential tax base,  $t_{VAT}$  the tax rate and  $a_{VAT}$  the base exploitation coefficient, also measured by a positive number smaller than 1.

For the sake of simplicity, the retail sales tax is assumed to be the same within each state. It could be either imposed by the state and shared with municipalities or directly collected by local governments. Both arrangements are consistent with writing the sales-tax revenue in state  $j$  as

$$ST_j = t_j a_j (1 + t_{VAT}) a_{VAT} B_{VATj} \quad [10]$$

The tax would be imposed on the gross value of final goods or services, including the VAT. If  $B_{VATj}$  is the VAT potential base in state  $j$ , the sales-tax potential base would be the effective VAT base,  $a_{VAT} B_{VATj}$ , multiplied by  $(1 + t_{VAT})$ . The degree of effective exploitation of that base in state  $j$  is denoted by  $a_j$  and the local sales-tax rate by  $t_j$ .

The total sales-tax revenue, raised in all states, would be given by

$$ST = S [t_j a_j (1 + t_{VAT}) a_{VAT} B_{VATj}] \quad [11]$$

an expression that may be rewritten as

$$IVV = a_{VAT} B_{VAT} \mathbf{S} t_j a_j (1 + t_{VAT}) b_{VATj} \quad [12]$$

where

$$b_{VATj} = B_{VATj} / B_{VAT} \quad [13]$$

is the share of state  $j$  in the VAT's potential base. Of course,

$$\mathbf{S} b_{VATj} = 1 \quad [14]$$

Assuming that both the excise tax and the VAT were collected by the Union, the revenue of state  $j$  would be given by

$$RE_j = (1 - m_j) ST_j + TR_j \quad [15]$$

where  $m_j$  is the proportion of the retail sales-tax revenue that state  $j$  passes through to its municipalities, and  $TR_j$  is the amount received by state  $j$  in the revenue-sharing arrangement involving the VAT and the excise tax. That equation can be easily altered in many ways to accommodate a number of different arrangements in the reform. If the VAT and the excise tax are assumed to be partly imposed by the states, as envisaged in some of the proposals, the right-hand side of the equation has to be properly rewritten in such a way as to include a term corresponding to the additional revenue state  $j$  would be directly collecting. On the other hand, to presume that the retail sales tax is to be wholly collected by local governments corresponds to assuming  $m_j = 1$  in equation [15]. However, some of the most important aggregate consistency issues involved in the reform do not seem to be very much affected by changes in assumptions concerning the tax-

collecting roles of the three levels of government, no matter how important those assumptions certainly are from the point of view of fiscal federalism.

The total value of revenue-sharing pass-through received by the states may be written as

$$TR = S TR_j \quad [16]$$

and the total revenue stemming from the three new taxes that, either directly or indirectly, would be channeled to the states would be given by

$$RE = S RE_j \quad [17]$$

Analogously, the revenue municipal governments would be getting from the three taxes could be written as

$$RM = S m_j ST_j + TRM \quad [18]$$

where the sum on the right-hand side is the municipalities' share in the total sales-tax revenue and  $TRM$  is the amount received by local governments in the revenue-sharing arrangement involving the VAT and the excise tax.

Once the model has been described, equations [7], [9] and [11] may be substituted into equation [2], allowing the total-revenue preservation constraint to be rewritten as

$$t_{EXC} a_{EXC} B_{EXC} + t_{VAT} a_{VAT} B_{VAT} + a_{VAT} B_{VAT} S t_j a_j (1 + t_{VAT}) b_{VATj} = R \quad [19]$$

That is the main equation of the consistency model. In principle, there is an infinity of combinations of values of the involved variables that should make the total amount of the three collected taxes equal to the required revenue  $R$ . One has to choose which will be the

adjusting variable. The obvious choice seems to be the rate  $t_{VAT}$ , given the fundamental role played by the VAT among the newly created taxes. Solving the equation above for  $t_{VAT}$ , one may write

$$t_{VAT}^* = \frac{R - t_{EXC} a_{EXC} B_{EXC} - a_{VAT} B_{VAT} \mathbf{S} t_j a_j b_{VATj}}{a_{VAT} B_{VAT} (1 + \mathbf{S} t_j a_j b_{VAT})} \quad [20]$$

For each set of values attributed to parameters and variables that appear in the right-hand side of the expression, one gets the corresponding value-added tax rate  $t_{IVA}^*$  that is required to generate the total revenue  $R$ .

Once the required rate  $t_{IVA}^*$  has been determined, one may establish how the total revenue will have to be redistributed in such a way as to preserve all government spheres and all states from revenue losses. Substituting equation [10] in [15], using [13] and the constraint established by [6] and, finally, plugging  $t_{IVA}^*$  in the resulting equation one may obtain

$$TR_j = REA_j - (1 - m_j) t_j a_j (1 + t_{VAT}^*) b_{VATj} a_{VAT} B_{VAT} \quad [21]$$

that determines the pass-through of federal revenue that is required preserve the revenue of state  $j$ .

The substitution of that expression in equation [16] leads to

$$TR = \mathbf{S} REA_j - (1 + t_{VAT}^*) a_{VAT} B_{IVA} \mathbf{S} (1 - m_j) t_j a_j b_{VATj} \quad [22]$$

that determines the total federal pass-throughs received by the states due to the revenue-sharing of the value-added tax and the excise tax.

Similarly, the substitution of equation [10] in [18] and the use of equation [13] and of the constraint established by equation [3c] leads to

$$TRM = RMA - a_{VAT} B_{VAT} \sum_j m_j t_j a_j (1 + t_{VAT}^*) b_{VATj} \quad [23]$$

that determines the total federal pass-throughs to municipalities which is required to preserve the revenue of the local governments.

## 6. SIMULATIONS AND REFORM UNCERTAINTY

Inserting plausible values for parameters and exogenous variables, one may use the model for simulation exercises. A full exploitation of the model's possibilities may be found in Werneck (2000), that analyzes the late 1997 tax-reform proposal, based on data available in early 1998. In this section, the model will be used in a much more limited way, just to shed some light, from an aggregate point of view, at difficulties and uncertainties involved in the “stylized” reform proposal depicted in the beginning of last section.

The value and decomposition of the total revenue that stemmed, in 1999, from the taxes that are supposed to be eliminated are presented in Table 6.1. In the same table, one may also see the involved revenue-sharing pass-throughs, as well as the resulting final distribution of resources among the three government-levels, shown on the right-hand side column. It is from this column that one may obtain the values that should be attributed to the exogenous variables  $RUA$ ,  $REA$  and  $RMA$ , that appear in equations [3] to [6].

The value of the variable  $B_{VAT}$ , that measures the potential base of the value-added tax, deserves a close attention. What has been envisaged – in fact, by all reform-proposals presented in Table 4.1 – is a destination-based consumption-type VAT. Aggregate consumption in 1999 has probably topped R\$ 600 billion.<sup>12</sup> But that estimate supposedly includes indirect taxes on consumption, whereas the model assumes a tax-exclusive VAT rate. On the other hand, the official national-accounts GDP figure probably underestimates the true value of the aggregate output by a considerable margin. And, having in mind the residual treatment given to consumption in the national accounts, it is

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<sup>12</sup> Estimate based on the available detailed 1998 national accounts and the recently published preliminary estimate of the 1999 nominal GDP, assuming that aggregate personal consumption remained constant as a proportion of GDP.

reasonable to assume that a disproportional part of the GDP underestimation falls upon aggregate consumption.

*Table 6.1*  
*Total Revenue from Taxes to be Eliminated and Revenue-Sharing Pass-Through*  
*1999*

	<i>R\$ billion</i>			
	<i>Collected Revenue</i>	<i>Pass-Through of Federal Revenue to State and Municipalities</i>	<i>Pass-Through of State Revenue to Municipalities</i>	<i>Final Revenue Distribution</i>
<i>Union</i>	<i>58.5</i>	<i>-7.8</i>		<i>50.7</i>
<i>IPI</i>	<i>16.5</i>			
<i>COFINS</i>	<i>32.2</i>			
<i>PIS/PASEP</i>	<i>9.8</i>			
<i>States</i>	<i>67.7</i>	<i>4.1</i>	<i>-16.9</i>	<i>54.9</i>
<i>ICMS</i>	<i>67.7</i>			
<i>Municipalities</i>	<i>4.7</i>	<i>3.7</i>	<i>16,9</i>	<i>25.3</i>
<i>ISS</i>	<i>4.7</i>			
<i>Total</i>	<i>130.9</i>			<i>130.9</i>

*Source: Secretaria da Receita Federal*

All qualifications being taken into account, the R\$ 600 billion figure was considered an acceptable upper bound for the potential VAT base. But roughly a fifth of that corresponds to residential housing services and it is hard to believe that it will be politically feasible to define a VAT base broad enough to embrace explicit and implicit residential rents. Again, that only stresses the need to have in mind the possibility of having an effective VAT base much narrower than the potential one, as was underlined in section 4. And that is why the coefficient  $a_{VAT}$ , that gauges the broadness of the base in the model, is bound to have such a crucial importance in the simulations.



Before considering more elaborate simulation exercises, it may be useful to establish a basic benchmark asking a very simple question. What would be the required VAT tax rate, if the total revenue now stemming from the taxes that are to be eliminated were to be entirely generated by the VAT ? In the model, that would correspond to a special case in which the excise tax rate  $t_{EXC}$  and all sales-tax rates  $t_j$  are assumed to be zero. Under those assumptions, equation [20]

$$t_{VAT}^* = \frac{R - t_{EXC} a_{EXC} B_{EXC} - a_{VAT} B_{VAT} \sum t_j a_j b_{VATj}}{a_{VAT} B_{VAT} (1 + \sum t_j a_j b_{VATj})} \quad [20]$$

would become a much simpler expression

$$t_{VAT}^* = \frac{R}{a_{VAT} B_{VAT}} \quad [24]$$

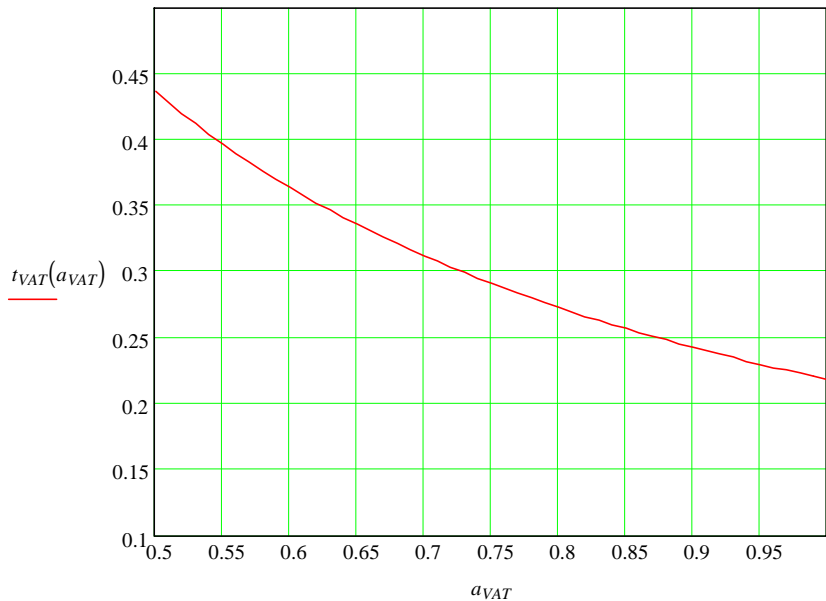
that leads to a very straightforward back-of-an-envelope calculation. If one overoptimistically assumes the  $a_{VAT}$  coefficient to be equal to 1 and, therefore, the effective VAT base to coincide with the potential R\$ 600 billion base, the VAT rate would have to be equal to approximately 21.8 percent in order to generate the R\$ 130.9 billion, currently collected by the taxes that are to be eliminated. Allowing for the narrowing of the tax base that would stem from the exclusion of residential housing services would mean to assume  $a_{VAT}$  to be roughly equal to 0.8, instead of 1. Under that assumption, the required VAT rate would leap to around 27.3 percent. Of course, an even narrower tax base, as could be reasonably expected, would lead to quite immoderate rates, as may be seen in Figure 6.1.<sup>13</sup>

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<sup>13</sup> The average revenue productivity of the value-added tax is defined as the revenue, as percent of GDP, generated by each percentage point of the nominal tax rate. Among Latin American countries, Chile, with 0.5, has the highest VAT revenue productivity. A tax rate of 18 percent allows the collection of 9 percent of GDP in revenue. It is curious to notice that, if the new Brazilian VAT could attain such a high productivity, the generation of a revenue

The possibility of exorbitant rates being after all required calls attention to a logic pitfall that may be involved in treating the effective broadness of the VAT base, measured by  $a_{VAT}$ , as an exogenous variable, independent of the tax rate. Given a legal definition of how broad the base is supposed to be and the degree of efficacy that may be expected from the tax collecting apparatus, it may be far more reasonable to assume that the effective broadness of the base depends on how high is the imposed VAT rate. The higher the tax rate, the stronger the evasion incentives and the narrower the effective base.

*Figure 6.1*  
*Required VAT Rate for Different Values of the Base-Broadness Coefficient  $a_{VAT}$*   
*Benchmark Case: Revenue of All Eliminated Taxes Entirely Generated by the VAT*



corresponding to 13.6 percent of GDP would require a rate of 27.2 percent, which is strikingly close to the rate calculated above. See Tanzi (2000) for recent data on VAT productivity in Latin America.

One could incorporate that assumption in the model supposing that the effective broadness of the VAT base may be written as

$$h = h(a_{VAT}, t_{VAT}, v) \quad [25]$$

a constant-elasticity function that simply corrects the legally determined value of  $a_{VAT}$  taking into account the tax rate  $t_{VAT}$  and the elasticity  $v$ . So far, the model was implicitly assuming that  $v$  was simply equal to zero. That means, for example, that if the legally defined base broadness corresponded to 70% of the potential base, one could supposedly count on such broadness, no matter how high the tax rate is. Undoubtedly, a very unrealistic assumption.

When equation [29] is introduced in the model, equation [9], that establishes the VAT revenue, has to be rewritten as

$$VAT = t_{VAT} h(a_{VAT}, t_{VAT}, v) B_{VAT} \quad [26]$$

And that means that the total-revenue preservation constraint, given by equation [19], has also to be rewritten, as

$$t_{EXC} a_{EXC} B_{EXC} + t_{VAT} h(a_{VAT}, t_{VAT}, v) B_{VAT} + h(a_{VAT}, t_{VAT}, v) B_{VAT} \sum t_j a_j (1 + t_{VAT}) b_{VATj} = R \quad [27]$$

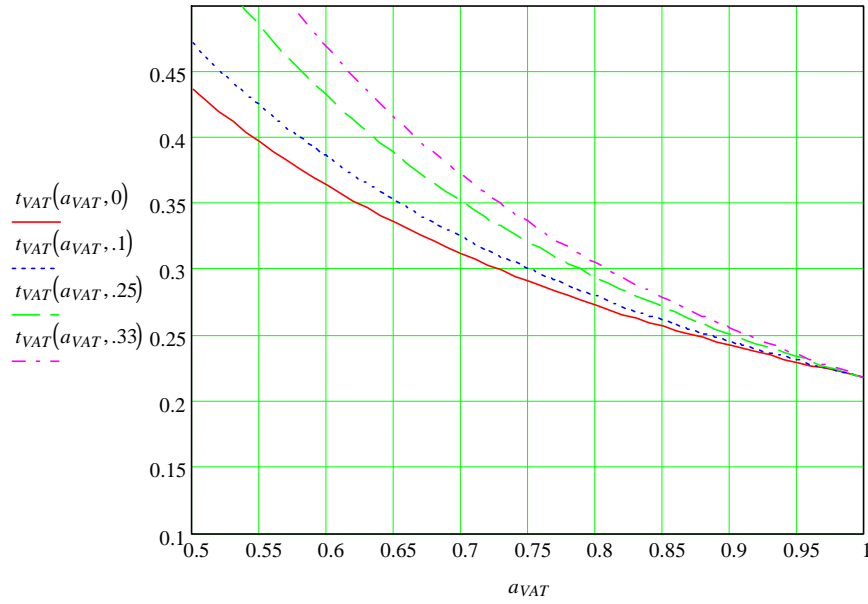
Attributing plausible values to parameters and exogenous variables, one may obtain the required VAT rate as the root of the above equation.

According to that equation, what would the required VAT tax rate be, if the total revenue now stemming from the taxes that are to be eliminated were to be entirely generated by the VAT? As before, the question involves a special case in which the excise tax rate  $t_{EXC}$  and all sales-tax rates  $t_j$  are assumed to be zero in equation [27]. Under those extreme assumptions, that equation simply become

$$t_{VAT} h(a_{VAT}, t_{VAT}, v) B_{VAT} = R \quad [27]$$

Assuming again the potential base  $B_{VAT}$  to be R\$ 600 billion, one may attribute different sets of values to  $a_{VAT}$  and to the elasticity  $v$ , and obtain for each of those sets, the corresponding root value that determines the required VAT tax rate  $t_{VAT}^*$ . Results of such simulations are presented in Figure 6.2, for different values of  $a_{VAT}$  and  $v$ .

*Figure 6.2  
Required VAT Rate  
for Different Values of the Base-Broadness Coefficient  $a_{VAT}$  and the Elasticity  $v$   
Benchmark Case: Total Revenue of Eliminated Taxes Entirely Generated by the VAT*



When the elasticity is assumed to be zero, one gets the lowest curve, which is identical to the one shown in Figure 6.1. The other three curves of Figure 6.2 were obtained by making  $v$  equal to 0.1, 0.25 and 0.33, respectively. It may be seen that, as one makes more

pessimistic assumptions on the base narrowing that may stem from increasing the tax rate, the involved trade-off between base broadness and the required rate becomes considerably more adverse.

To what extent could the trade-off be eased by bringing back the excise tax and the retail sales tax to the scene? As a matter of fact, it is hard to see how the retail sales tax could help much, at least from an aggregate viewpoint. The idea of introducing a sales tax has basically stemmed from fiscal-federalism concerns. It is much more a form of giving the lower-level governments a tax revenue to collect than an attempt to ease the pressure on value-added taxation. In fact, as the sales tax and the VAT constitute a rather odd combination, there has even been a proposal of reducing the oddness by piggybacking the retail sales tax onto the VAT. State or municipalities would collect an additional percentage on top of the VAT rate. Even if such solution is not adopted, one should not miss the point that the sales tax, as have been envisaged in the various reform proposals, seems to be simply a way to redistribute the power to tax the VAT base within the federation.<sup>14</sup>

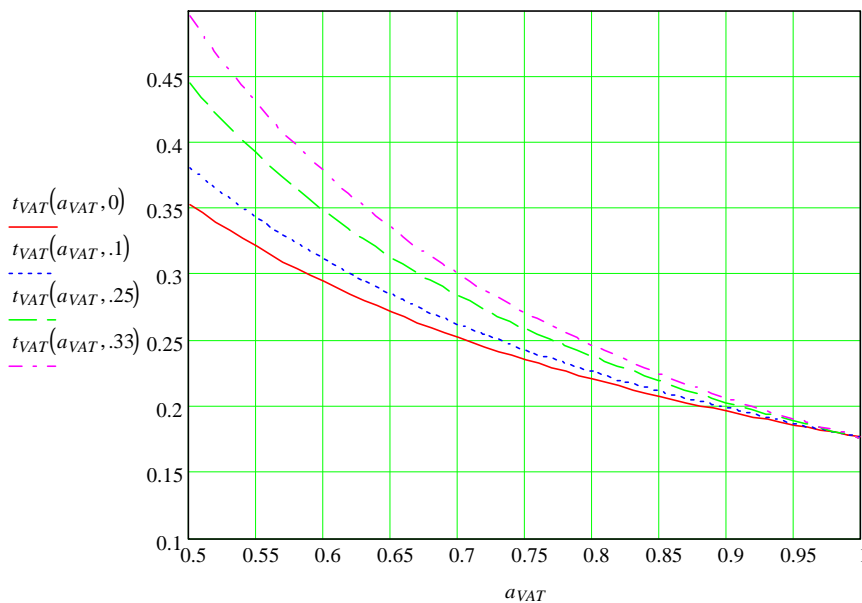
Would the excise tax do the trick? Of course, it all depends on how much revenue could be expected from it. As a matter of fact, all tax-reform proposals that envisaged the creation of an excise tax, collected either at federal or state level, were marked by a rather loose definition of what would be the tax base. And much looser yet in what concerns tax rates and revenue to be expected. But in the discussion of the late 1997 proposal, a reasonable estimate of the value that could be raised by the excise tax was considered to be between 2 and 2.5 percent of GDP. In 1999, that meant something on the order of R\$ 20 to R\$ 25 billion. Even if one takes the upper limit, there would still be a revenue of R\$ 105.9 billion left to be generated by the VAT-cum-sales-tax arrangement, if the R\$ 130.9 billion target were to be reached.

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<sup>14</sup> It goes without saying that the same point becomes much more forceful yet in the case of a dual VAT arrangement.

How much lower would the required VAT tax rate be? In order to answer that question, the simulations that led to the results presented on Figure 6.2 above were repeated, under the assumption that the targeted value-added tax revenue was only R\$105.9 billion. The results are presented in Figure 6.3, for different values of  $a_{VAT}$  and  $v$ .

*Figure 6.3*  
*Required VAT Rate*  
*for Different Values of the Base-Broadness Coefficient  $a_{VAT}$  and the Elasticity  $v$*   
*Total Revenue of Eliminated Taxes Generated by the VAT,*  
*Complemented by R\$ 25 billion of Excise-Tax Revenue*



If  $a_{VAT}$  could be made equal to 1, the R\$ 25 billion of excise-tax revenue would allow a reduction in the required VAT rate from 21.8 percent, as was shown in Figure 6.2, to 17.7 percent, as may be seen in Figure 6.3. Roughly, it would take R\$ 6 billion of excise-tax revenue for each percentage point of reduction in the required VAT rate. But as one

attributes lower and more realistic values to  $a_{VAT}$ , assuming a narrower effective base, the required VAT rate increases very fast. For  $a_{VAT}$  equal to 0.7, the required rate would lie between 25 and 30 percent, depending on which value is attributed to the elasticity  $v$ , in a range that goes from zero to 0.33. It should be noticed however, that the narrower the effective VAT base, the stronger the sensitivity of the required VAT rate to an increase in the excise tax revenue.<sup>15</sup> When  $a_{VAT}$  is made equal to 0.7 and the elasticity  $v$  is assumed to be zero, it takes only R\$ 4.2 billion of excise-tax revenue to reduce the required VAT rate in one percentage point, from roughly 25 to 24 percent. And when  $a_{VAT}$  is kept at 0.7, but the elasticity is assumed to be 0.33, it takes much less. Only R\$ 2.4 billion. But the rate reduction is from approximately 30 to 29 percent.

The big question is how broad could be the VAT tax base finally extracted from Congress. As seen above, about a fifth of the potential base corresponds to residential housing services. And, as discussed in section 4, Congress is bound to show great resistance to the inclusion of such services in the base and, also, to broadening the base as much as needed in order to let it embrace most other services. Moreover, arguments based on the on the idea of labeling the consumption of certain goods and services as either essential or meritorious should bring additional erosion to the tax base finally approved by Congress. All things considered, in the end the feasible base may be excessively narrow and require an unreasonably high VAT rate. One may see, therefore, that there are considerable political and legislative risks to be taken into account, even if the involved difficulties are merely seen from an aggregate point of view.<sup>16</sup> Those risks are much amplified however when the difficulties that stem from fiscal federalism are brought to the scene.

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<sup>15</sup> That may be easily checked in equation [24], that implicitly assumes the elasticity  $v$  to be zero. In that equation, the derivative of the required VAT rate with respect to  $R$  increases when  $a_{VAT}$  decreases.

<sup>16</sup> See Werneck (2000), for an attempt to take those risks into account in the evaluation of the late 1997 proposal, using an analytical framework based on Monte Carlo simulations.

## 7. The Fiscal-Federalism Conundrum

It is impossible to fully understand the present deadlock in the tax-reform negotiations without having in mind the complexity of the Brazilian fiscal federalism. And if there is any hope of breaking the deadlock, that task is bound to require a much clearer analysis of interests, apprehensions, reasons and motivations of the main involved actors. Today, there is nobody in the country that seems to be satisfied with the present tax system. Cutting across the whole political spectrum in Congress, there is an impressive consensus on the urgent need of a bold reform. But, as often happens, the consensus disappears as soon as the generic idea of the reform is left behind and the discussion starts to be a bit more detailed.

As seen in the previous sections, the main line of the reform-proposals that have been discussed since 1997, involves a deep change in the way goods and services are taxed in the country. What has been envisaged is a reconstruction of value-added taxation on broader and more rational grounds, in such a way as to allow the elimination of the turnover and cascading taxes that have gained so much importance over the last decade. But, as the combined revenue raised by taxes to be eliminated corresponds to 13.6 percent of GDP, that means a gigantic operation of extraordinary complexity and full of all kinds of uncertainties. Particularly when seen from the point of view of fiscal federalism.

Since the late 1997 proposal, the federal government was careful enough to assure that there was no intention of imposing any kind of loss to any of the three government tiers. Neither the Union, nor any state or municipality would have to cope with shrinking fiscal resources. Commendable as that stated intention certainly was, it is widely known that in a reform of such scope it is practically impossible to prevent significant losses. Though it has been proposed that resources from a national compensation fund would be available to offset any losses, potential losers thought they had good reasons to be skeptical about the possibility of relying on the promised compensation scheme.



As seen, in section 3, such skepticism lend force to proposals of abandoning the idea of a nationally managed VAT and adopting instead a dual VAT, involving the harmonic coexistence of separate but integrated federal and a state value-added taxes. That was the distinctive mark of the third and fourth proposals listed in Table 4.1.<sup>17</sup> But the federal government has remained unconvinced about the dual VAT arrangement.<sup>18</sup>

As the three levels of government have been engaged for a long time in a very wearisome fiscal-adjustment effort, uneasiness about the possibility of losing revenue has become quite exacerbated. Initially, when the first reform proposal was outlined in 1997, apprehension with possible losses imposed by the reform was basically found among governors and mayors. More recently, however, the federal government itself started to show its own misgivings, fearing that the reform could in someway revert the spectacular increase in federal tax revenue observed since 1993, putting in jeopardy the consolidation of the whole stabilization effort.

The tax reform debate has become a noisy clash of conflicting views, increasingly marked by strong risk aversion towards revenue losses. There is fear on all sides. Initially agreed compensation rules might not be respected and could be altered in the future. The tax base of the new VAT might have a totally different regional distribution, as the current origin-based value-added tax is converted into a destination-based one. The total revenue collected might shrink. Introducing radical changes in consolidated tax legislation might open the way for an unending litigations. For whatever reason, there could be revenue losses.

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<sup>17</sup> See again Afonso, Araújo, Rezende and Varsano (2000).

<sup>18</sup> A full analysis of the possibilities of the dual VAT arrangement goes beyond the scope of the present paper. See Varsano (1995 and 1999), Bird (1999), Bird and Gendron (1997), Keen (1999) and McLure (1999a and 1999b).

Though there is an increasingly clear perception that the “fiscal war” among states is leading to nowhere, governors fear a tax reform might tie their hands and put an end to using tax breaks to attract industrial investors. Also, governors of states situated in regions currently benefited by federal tax incentives fear that a reform might mean the final wiping out of those privileges.

As all those apprehensions interact, the result has been an escalating non-cooperative game, marked by increasing mistrust. A game that seems to have pushed some of the involved parts to totally unreasonable positions. Federal tax authorities started to heartily defend the idea that cascading taxes are not so bad after all. And at the state level, some governors seem so entrenched to the point of defending, as something sacred, their right to continue to impose on some services, as telecommunications, a 40 percent state-VAT.

Even if there were a cooperative game within the federation, the reform would still be a rather complex operation. And, of course, such complexity has been much amplified by the conflicted way the reform has been discussed. As the difficult negotiations have been dragging for years, relationships between some key interlocutors have become obviously overstrained. And some of the contending positions are becoming unreasonably crystallized.

Given the undeniable urgency of the reform, it is important to know how to start again, from scratch, if needed. There is no possible justification for prolonging the brutally irrational way the three levels of government have been extracting 32 percent of GDP in taxes from the economy. The powerful tax-policy mobilization that was required to stage the stabilization battle has now to be reverted, opening the way to less primitive taxation forms, that may enhance competitiveness and economic growth. And, still in the first half of the current presidential term, there is no sense in putting off the whole reform issue to the other side of the 2002 elections. But the present deadlock can only be broken by the federal government. And in order to revert the widespread mistrust that brought

negotiations to a halt, the government has to show a credible commitment to a new tax reform proposal, much bolder than the one announced in August 2000.

Concern with assuring the overall consistency of the new tax system that will stem from the reform should not be taken to the point of assuming that all changes will have to take place at the same moment. That would make the involved challenge seem to be more formidable than it actually is. A wiser move would be to try to decompose the envisaged reconstruction of the tax system in modules that would allow less complex political negotiations, easier implementation and some degree of experimentation as the reform is phased in. On the other hand, it seems that too much strain has been put on indirect taxation in Brazil. The problem could become more tractable if part of that strain could be shifted to direct taxes, as there seems to be ample room for a more intelligent exploitation of the personal income-tax base in the country.<sup>19</sup>

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<sup>19</sup> A recent study conducted by the federal tax authorities concluded that the total revenue that is currently being generated by the still highly complex income-tax system, which involves a top rate of 27.5 percent, could as well be raised by a simple flat-tax arrangement, that would keep the present US\$ 5,000 per year basic exemption level and impose a tax rate of only 7.7 percent. That seems to be a good measure of the inefficacy of personal income taxation in the country. See “Alíquota única para IR esbarra em resistência política e jurídica”, *Valor Econômico*, October 18, 2000.

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